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St. Bartholomew's Hospital Journal,

FEBRUARY 14th, 1895.

"Æquam memento rebus in arduis
Servare mentem."—Horace, Book ii, Ode iii.

IT has been said that there is no variety or form of knowledge which cannot at some time or other be made use of by the medical man, either in the actual practice of his profession or in his capacity as general practitioner. It has been further said that no class of educated men, as a whole, is so utterly and consistently ignorant of literature outside its own particular sphere as the members of the medical profession.

There is, doubtless, much truth in each of these statements. The surgeon, in the practice of his profession, practises in turn almost every art, from that of the seamstress to those of the carpenter and blacksmith, while every one knows that a first-class physician should be also a first-class cook. In the capacity of family medical adviser the general practitioner is called upon to assist in choosing a school, and, later, a profession for his patient's children, to read the character of a new housemaid in her face, to advise on financial investments, and to give an opinion upon a new horse, the latest Parliamentary Bill, the harvest, and the sermon preached last Sunday. It is obvious that the laity

are unable to pass judgment upon a medical man's technical knowledge, and on this account they are more or less compelled to base their opinion of his technical knowledge, of which they know nothing, upon his ability to discuss questions of which they know—or think they know—something.

With regard to the second of the two statements—that medical men as a class are illiterate,—there can be very little doubt that, with some notable exceptions, it is a true bill. Medical men read little, if any, standard non-medical literature during their student days, mainly because there is already such a vast amount of solid reading to be got through; and when they become medical practitioners they still lack, in the majority of cases, either the energy, the time, or even the inclination, to do much reading. They are more than content if they can manage to keep themselves *au fait* with the advances of medicine and surgery by a weekly perusal of either the *British Medical Journal* or the *Lancet*.

Every one will agree with us in thinking it deplorable that such should be the case. Such a condition of things must tend towards narrow-mindedness and arrested mental development. It is, however, by no means easy to suggest a remedy. It is useless in these high-pressure examination days to advise men not to forget their study of standard literature, and to warn them that to do so will cause much subsequent regret. Examinations are continually in front of them, and their desire to see these examinations behind them is naturally so great that no other question has, from their point of view, anything like the same degree of importance.

There has been lately some talk, both in the School and in our Correspondence column, of the desirability of starting a Debating Society, which, in no sense a rival to the Abernethian Society, shall hold meetings for the discussion of questions outside the profession.

We are inclined to think that such a step, if actively carried out, and provided that a sufficient number of men could be persuaded to attend its meetings and to take part in the discussions, would do much towards the improvement of the existing state of affairs.

It is reasonable to expect that there would be far less of that diffidence felt by a junior when speaking in the presence of his seniors than is the case in the discussions of the Abernethian Society, where purely medical subjects are discussed. Thus, in all probability, men would be far more ready to avail themselves of the opportunities offered by it for practice in public speaking. To nearly every one it happens on some occasion or another that he is, "willy nilly," called upon to speak in public, and greatly to his advantage is it if he has already enjoyed that familiarity with the task which breeds contempt for its difficulties.

We should be glad to publish the opinions of any members of the School upon this subject, and to do anything in our power to further so excellent an object. We have little doubt that the Amalgamated Clubs would look upon it much in the light that we do, and that if a Debating Society were formed and properly supported by a sufficient number of students, they would no doubt admit it to the amalgamation, and help it forward in every possible way.

We trust that the project will not be allowed to lapse, but that before long we shall have the satisfaction of publishing the reports of the St. Bartholomew's Hospital Debating Society alongside those of the Abernethian Society.

Notes on Aseptic Surgery.

By C. B. LOCKWOOD, F.R.C.S.,

Assistant Surgeon to the Hospital.

(Continued from page 54.)*

BEFORE I proceed with the sources of wound infection another useful method of staining may be mentioned. Gram's method demonstrates with clearness erysipelas and nearly all the pus cocci, especially *Staphylococcus pyogenes aureus* and *albus* and *Streptococcus pyogenes*. It is as follows:—Prepare a solution of aniline oil water by shaking up some aniline oil with distilled water (a stock bottle of this solution is usually kept). Filter some of this into a clean test-tube until a quarter full. Add to this aniline oil water a drop or two of a saturated alcoholic solution of gentian violet or methyl violet. After this addition the solution should be dark but translucent. If it has become turbid add a few drops of alcohol. Filter a little of this staining solution into a clean watch-glass, and place the cover-glass preparation or section into it for three to five minutes. Sections of tissues are transferred into it direct from alcohol. After staining the preparation is well washed in clean water, and placed for a minute in some of Gram's iodine solution, which is made as follows:—Pure iodine 1 gramme, iodide of potassium 2 grammes, distilled water 200 grammes. The

* In the last of these notes a few lines of proof were not sent for correction. Therefore, on page 53, *Arna* ought to be *Arnd*, and the title of his paper calls for correction.

specimen emerges from this a rich brown, but after washing in alcohol and water it loses this, and becomes a sort of slate-colour. After this stage the cover-glass preparation is put up with Canada balsam; sections are dehydrated, clarified with bergamot oil, then with xylol, and mounted in the usual way. It is dangerous to use clove oil, as it decolourises the sections. Gram's iodine solution acts both as a decolourising reagent and as a mordant. The bacteria stand out as almost black objects, and in sections are upon a ground of slate-coloured or brownish tissue.

Gram's method requires practice, but gives beautiful results when successful. In sections which have not been well decolourised by washing in spirit little particles of dye are apt to remain. These are easily mistaken for cocci. They are, however, distinguished by the variability of their sizes and shapes.

We now come to the sources of infection. Bacteria, such as those which I have mentioned, are introduced into wounds from the air; by water or anything brought in contact with wounds; from the skin of the patient; from the skin of the hands and arms of surgeons and nurses; and sometimes they are carried into wounds by the patient's blood-stream. All this applies, of course, to cases in which no local sepsis exists before the operation; these will be taken separately, and their disinfection described.

The chief of the above forms of infection are air infection, water and contact infection, and skin infection. Infection through the circulation, auto-infection, is rare.

The air has long been thought a potent source of infection. It is probable that the work of Lister and of Tyndall gave surgeons an exaggerated idea of the quantity of bacteria in the air. Tyndall drew attention to the swarms of dust particles in the air of cities and dwellings. Possibly by a confusion of thought the abundance of these particles may have been taken to indicate the actual quantity of bacteria in the air. At any rate, surgeons used to try either to exclude air from wounds, or to surround them with a purified atmosphere. This was the reign of the spray.

At present there is a reaction against air infection and the spray, and now some seem to think that the air is harmless. This is not justified by the facts. Haegler* found *Staphylococcus pyogenes aureus* in plate cultures exposed for five minutes in one of Socin's wards. The air of Billroth's wards was found to contain all kinds of moulds, yeasts, and bacteria.† Amongst the last were various bacilli and cocci, and the streptococcus of erysipelas. The appearance of this was simultaneous with the entrance of cases of erysipelas into the wards. The streptococci were obtained by exposing culture media in plates near the heads of the

* *Beiträge zur klinische Chirurgie*, Bd. ix, Heft 3.

† Von Eiselsberg, "Nachweis von Erysipelkokken in der Luft chirurgischer Krankenzimmer," *Archiv für klinische Chirurgie*, von Langenbeck, 1887, p. 1.

patients. Von Eiselsberg,* who records this, says that Emmerich has found the streptococcus of erysipelas in the air of a dissecting room.

Mr. Waring† exposed gelatine plates for a minute in our operation theatre and wards, and afterwards found colonies of various kinds of bacteria, including *Staphylococcus pyogenes aureus* and *albus*. In the air of the isolation ward for erysipelas he found *Streptococcus pyogenes seu erysipelatis*.

The tubercle bacillus has over and over again‡ been found in the dust of wards where phthisical people were collected and allowed to expectorate their highly infectious sputum.

In addition to these well-recognised pathogenic bacteria the air may contain other cocci and bacilli, together with yeasts and moulds. Obviously much will depend upon the sources of the dust. As I have pointed out, the dust from roads and fields nearly always contains the *Bacillus septicus*, the bacillus of tetanus, and the *Bacillus coli-communis*.

The laws which regulate the number of bacteria in air are now beginning to be understood. In the air of rooms and dwellings they are always present, but dryness and disturbance are essential for their presence in large numbers. Neumann§ found from 80 to 140 bacteria in ten litres of the air of the wards of the Moabite Hospital after the wards had been swept and the convalescents had risen. At night when all was quiet only four to ten were found; ventilation did not increase their numbers.

The presence or absence of moisture has an important relation to the dissemination of bacteria in the atmosphere. Nägeli's|| experiments showed that bacteria could hardly be detached from moist surfaces—very strong currents of air might occasionally carry particles of fluid containing bacteria a short distance through the air, but they soon subsided. The inability of bacteria to detach themselves from moist surfaces explains their absence from the breath. Bacteria are present, however, in expired air when, as in coughing or sneezing, it carries with it particles of saliva or of mucus; but it is easy to prevent either of these entering wounds. Fluids, such as pus or blood, do not part with bacteria to the atmosphere until they have been dried and pulverised; but when converted into dust the particles of pus or blood may be virulent for many months. Tubercle bacilli retain their vitality in the dry state for six months,¶ so that the purulent sputum of tuberculous patients is a danger as great as is the milk of tuberculous cows. No wonder, when we consider the laxity with which the phthisical are treated, that

* Page 17.

† *St. Bartholomew's Hospital Reports*, vol. xxix, 1893, p. 101.

‡ See Cornet on "The Diffusion of the Tubercle Bacillus External to the Body," *Med. Record*, 1889, p. 222; also *Zeitsch. für Hygiene*, vol. v, 1889.

§ "Ueber den Keimgehalt der Luft in städt.-Krankenhause Moabit," *Vierteljahrsschrift für gerichtliche Medicin und öffentliches Sanitätswesen*, Bd. xlv, 1886, p. 310.

|| Quoted by Flügge, *Micro-organisms with Special Reference to the Aetiology of the Infective Diseases*, New Sydenham Society's translation, 1890, p. 687, et seq.

¶ Flügge, *loc. cit.*, p. 737.

"a third of the deaths between fifteen and forty-five in England is due to this terrible disease."*

Marpmann† seems to have had little difficulty in finding tubercle bacilli in the dust of the streets of Leipzig. He claims that they can be grown, and that tuberculosis can be produced with them.

It is known that pyogenic organisms, such as *Staphylococcus pyogenes aureus*, live for years in culture media. The duration of their life in dust is hardly known, but is doubtless considerable. The spores of anthrax, tetanus, and of the *Bacillus septicus* live for an indefinite period in dust and earth, and merely require to be placed under proper conditions of warmth, moisture, and nutriment to sprout and give birth to fresh swarms of virulent bacilli.

Tyndall,‡ in his admirable experiments with closed chambers, definitely proved that when the air is still all the dust and bacteria gravitate, and that thus a pure atmosphere, similar in this respect to that over the ocean or mountain tops, is produced. Bacteria gravitate in the same manner in operation theatres and dwelling-rooms, as was shown in Neumann's experiments.

Bearing upon this point we may quote Flügge, who says that in ordinary air one to five hundred living bacteria have been found in each cubic metre. He adds that this proportion becomes much less in rooms which have not been disturbed.§

The lessons to be learnt from this are clear. Dust is to be avoided, especially dust which has been mingled with pus, blood, or sputum. Obviously those fluids, or any other infected materials, ought never to be allowed to dry, but be removed or wiped up at once. It is also desirable in planning wards and operation theatres to have smooth and polished surfaces, such as retain but little dust, and are easily wiped down with cloths wet with disinfecting solutions. The frames of doors and windows should be flush with the walls, and corners ought to be rounded. Every chink and cranny ought to be open to inspection, and arranged for easy and efficient dusting. Curtains should only be used where absolutely necessary, and should be frequently washed.

When it is necessary to prepare a private dwelling-room for an operation it should be done the day before, and left for the dust and bacteria of the atmosphere to subside.

The risk of air infection during operations is diminished by rapidity in operating; by keeping the wound covered as much as possible with an antiseptic sponge or layer of gauze; and by irrigating it with a stream of antiseptic lotion. When a large cavity like the abdomen is opened the protection of a flat sponge is particularly important. If, in the midst of an operation, it becomes necessary to

* Fagge's *Medicine*, vol. i, p. 1052.

† "Die Untersuchung des Strassenstaubes auf Tuberkelbacillen," *Centralblatt für Bakteriologie und Parasitenkunde*, Band xiv, 1893, p. 229.

‡ *Essays on the Floating Matter of the Air*, 1881, p. 131, et seq.

§ Page 687.

move the table or light the gas, the wound and field of operation should be covered with sterilised towels until the change is completed. Neither the operator nor any of his assistants should assist in moving the patient or in lighting the gas. Should they do so they ought to take special pains to immediately disinfect their hands and arms.

Ordinary tap water contains an extraordinary array of bacteria. Most of these are saprophytes, and can, therefore, only live upon dead tissues; but others are pathogenic. Eisenberg tabulates twenty-six species of non-pathogenic micrococci and fifty-eight of non-pathogenic bacilli as having been found in water. Ten kinds of pathogenic bacteria have been found, including *Staphylococcus pyogenes aureus* and the *Proteus vulgaris* and *mirabilis*. But Eisenberg's list is already incomplete. Landmann,* whilst examining the water of a well for diphtheria bacillus, found that it contained *Streptococcus longus*, which was most virulent for mice. The bacillus of leprosy has recently been found in abundance in water used by lepers.† Obviously ordinary care demands that only sterilised water be brought in contact with wounds, particularly those which are closed and sealed with dressings.

Although the saprophytes which inhabit water cannot flourish in living tissues, yet it is dangerous to introduce them into cavities in which blood-clot, pus, or albuminous fluids can collect. Such collections provide saprophytes with suitable food, so that they multiply and manufacture sapric substances, which being absorbed cause the phenomena of sapræmia.

The pathogenic bacteria of water are seldom or never present in numbers, but it would be unwise to ignore their occasional occurrence. Therefore the water which is applied to wounds or used for irrigation is always mixed with chemicals or boiled. I have never known an instance in which boiling for five minutes has failed to disinfect ordinary tap water or distilled water. Moreover water becomes sterile when mixed with small quantities of chemicals.

Some time ago I tested the ordinary supply of hot water at the Great Northern Hospital.‡ This supply is pumped up to the operation theatre from large boilers in the basement. To test the water the operation theatre basin was filled in the usual way, and the water inoculated into gelatine tubes, which remained sterile. Mr. Waring§ tested the hot water at St. Bartholomew's in the same way. Water taken from the hot-water tap of the operation theatre contained several varieties of micrococci and bacilli, but none of them appeared to be pathogenic.

Instruments are the most potent source of wound infection. However well they are made, and however well mechanical means are used to cleanse them, particles of blood, pus,

or infecting material must often lodge in their joints and serrations. Suppuration has been so long regarded as a normal event—indeed, books still talk about laudable pus—that direct evidence of the infection of wounds with pyogenic organisms is hardly to be found. The inference, however, is none the less clear. But in other diseases than suppuration direct evidence is at hand. In speaking of tubercle I gave instances of its transmission by instruments. Roswell Park* says that Thiriar lost ten cases of major operation from tetanus before he discovered that his hæmostatic forceps were the source of infection. It would be easy to cull from the records of midwifery and obstetric surgery instances of the conveyance of infection by forceps and other instruments.

The mere fact of an instrument being new from the maker is no guarantee of its sterility, or even of its cleanliness. As Reverdin says in his excellent manual,† our instruments come from the greasy and dirty hands of the workmen, their crevices full of oil and filth; whilst the instruments of veterinary surgeons, pathologists, knackers, and even those used for inoculations in the laboratory, are sharpened upon the same stone.

A bacteriological examination of the instruments of bygone times would have been instructive. I once obtained a set of instruments which had been used for a case which died of pyæmia. Material from amongst the teeth of the forceps did not infect gelatine. Some blood upon a holder with an ivory handle grew a micrococcus, probably *Staphylococcus pyogenes albus*. I afterwards learnt that the forceps had been boiled after the operation and just before my examination. Moreover, they had previously been used for another case which died of pyæmia.

But anyone who has performed inoculation experiments upon animals with cultures of tetanus, anthrax, tubercle, or the pyogenic cocci needs no arguments to convince him of the danger of the conveyance of infection by instruments. Every one should see inoculations performed with some of the more virulent microbes. My own bacteriology classes would not, as a rule, believe that a mouse would die of anthrax after it had been merely punctured with a needle conveying a dose of anthrax inappreciable to their unaided senses.

In laboratory work no one would dream of touching culture media with unsterilised instruments. If such were used a growth would certainly ensue. The nature of the growth would depend upon many circumstances, but, as a rule, would consist of moulds, sarcinæ, hay bacilli, white micrococci, or other common inhabitants of air and dust. Had the instruments previously been used for an inoculation with anthrax or *Staphylococcus pyogenes*, they, too, might be expected to grow.

The towels, sponges, catgut, silk, and dressings may all

* *Centralblatt für Bakteriologie*, vol. xiv, 1893, p. 430.

† *Report of the Leprosy Commission*, 1893, p. 403.

‡ "Report on Aseptic and Septic Surgical Cases," *British Medical Journal*, May 28th, 1892.

§ *St. Bartholomew's Hospital Reports*, 1893, vol. xxix, p. 101.

* *Lectures on Surgical Pathology*, St. Louis, 1892, p. 175.

† *Antiseptie et Asepsie chirurgicales*, Paris, 1894, p. 79.

be contaminated by air, dust, or water, and contain, therefore, bacteria such as I have mentioned; but in addition each thing may have upon it bacteria of particular kinds. For instance, I have found in towels, besides *Staphylococcus pyogenes-albus* and moulds, a bacillus which grew with a strong sebaceous odour, and had, without doubt, been derived from some one's skin. Hobein* found that under-clothing was also infected by the bacteria which Bizzozero had described as living in the skin.

It is to be expected that towels would contain skin bacteria, but they may also be infected in a host of other ways. It is hardly necessary to mention the uses to which towels are put, or to point out that those which have been used in the pathological, anatomical, or other departments may all be mingled and washed with those which are used at operations.

The sponges which are used in operations ought to be of the soft fine Turkish variety. A glance at the way in which these articles are prepared for the market shows that even new sponges leave much to be desired, and that they may harbour all kinds of bacteria.

After sponges have been fished up by divers they are exposed to the sun until decomposition has begun. Then they are beaten in running water to remove the soft animal matter. If this part of the process is postponed for only a few hours after the sponge has been exposed a whole day to the air, it is almost impossible to completely purify it.† After draining it is hung up in the air to dry, and then, with others, finally pressed into bales. As sponges are sold by weight, sand is often added as an adulteration. Before sponges are sold to the public by dealers they are cleansed of sand and bleached with sulphurous acid.

I have usually tested the sterility of sponges after they have been prepared for operations. These sponges have been commendably aseptic. Once I met with *Staphylococcus pyogenes-albus*, and once with a micrococcus, probably derived from the hands. Upon one occasion I met with a bacillus about the size and shape of tubercle bacillus. This grew singly, and in short leptothrix. At summer temperature it grew slowly near the surface of the gelatine as a delicate white cloud, and produced a slow liquefaction. On agar-agar it grew on the surface and in the depths, the surface growth being a smooth white streak with slightly irregular edges. The bacillus made broth slightly turbid. I have not before met with any bacillus exactly like this one.

(To be continued.)

Cases of Special Interest.

MEDICAL.

- Luke, No. 15.—M., 37. Muscular atrophy of right upper limb.
Matthew, No. 14.—M., 47. Muscular atrophy of both upper limbs.
Luke, No. 13.—M., 40. Tabes dorsalis.
John, No. 13.—M., 41. Abdominal aneurism.

* *Zeitschrift für Hygiene*, 1890, p. 218.

† See article, *Encyclopædia Britannica*, vol. xxii, p. 429, edit. 9, 1887, W. J. Sollas.

The Pathology of Insanity: the Means and Methods of its Study.

Delivered before the Abernethian Society on November 29th,

1894, by W. J. COLLINS, M.D., J.P., L.C.C.,

Fellow of the University of London.



HIS is the ninth occasion on which I have had the honour of reading a paper or opening a discussion before the oldest Medical Society of London; and it was an especial pleasure with which I accepted your Secretary's cordial invitation, in this your centenary year. Though my connection with your hospital has long since terminated, though my work has led me into other paths, I retain a lively sense of my former and unbroken connection with the Abernethian Society, the Presidency of which I held for two consecutive years, during the last decade, in a manner less worthy, though not less proud, than that, sir, with which you occupy that honoured chair to-day. Last year I ventured to speak of some medical work on the L. C. C., and, although I endeavoured to disarm those critics who look with suspicion upon any medical work which does not partake of the nature of compounding a rhubarb pill, or supporting the perinæum, I was good-naturedly chided in the discussion which followed (and to which I always look forward with zest), and reminded that I had laid under contribution matters which would hardly fall within the restricted horizon of the aforesaid pharmaceutical and obstetric critic.

To-night, I will endeavour to keep well within the fold; the Pathology of Insanity is a realm in itself, at once vast, obscure, and in part untraversed. I am not so presumptuous as to think I can treat of it, even in skeleton outline, within the limits of your patience, and at my disposal. I have but poor qualification for such a task, and I make this admission at the outset, and without reserve; my object is rather to survey from the outside, as it were, the methods of study, the facilities for research, the attitude of mind to be assumed, in approaching the annexation of this dark and outlying continent of pathology to the better known and more illumined and well-worn tracks of medical science.

The reasons for the relatively backward state of the pathology of insanity compared with the well cultivated fields of other areas of disease are not far to seek. Complexity, alike, of chemical constitution and physical structure of the nervous system, the proportionate littleness of lesion with the magnitude of the malady; inaccessibility to direct investigation, mystery supported by witchcraft, and often trammelled by a spurious theology, are among the things that have stunted and dwarfed the onward progress of mental pathology. Take, for instance, the case of Sir William Lawrence—a name to be mentioned with reverence within this place, himself apprenticed to the man whose name this Society perpetuates, and whose intellectual features look down upon us from these walls—yet he, in his early prime, endangered his position by the breadth of his views, and the freedom of his speech upon matters wherein, it was foolishly thought, religion conflicted with science. His mind, which was singularly endowed, was sedulously cultivated, and he had deeply drunk of that philosophy which possessed the intellect of Europe after the French Revolution. Science, he said in his memorable work on the natural history of man, requires an expanded mind, a view that embraces the universe. Cuvier was his ideal, and his praises he never tired of singing. Hunter might be a surgical physiologist, he said, but Cuvier was a philosophic naturalist. Hunter's view of life as something superadded to matter, a belief which Abernethy declared to be cardinal, was the object of his unsparing attack and merciless criticism. The defenders of the dogma branded him as a sceptic and materialist, and his heinous doctrine that *the brain was the organ of mind*, which sounds inoffensive enough to-day, was held to be so impious that the governors of Bridewell and Bethlehem demanded recantation or resignation. Alas! thus impaled, he did not prove superior to Galileo, and the most enthusiastic admirer of his splendid intellect would find it difficult to reconcile his recantation with the principles he professed to hold. In the introductory lecture he gave in 1817, in which he attacked Mr. Abernethy, who was no literary match for him, he declared, "However flattering it may be to my vanity to wear this gown, if it involve any sacrifice of independence, the smallest dereliction of the right to examine freely the subjects on which I address you, and to express fearlessly the result of my investigations, I would strip it off instantly. I willingly concede to every man what I claim for myself—the freest range of

thought and expression; and am perfectly indifferent whether the sentiments of others on speculative subjects coincide with or differ from my own. Instead of wishing or expecting that uniformity of opinion should be established, I am convinced that it is neither practicable nor desirable; to quarrel with one who thinks differently from ourselves would be no less unreasonable than to be angry with him for having features unlike our own." Such noble liberality of sentiment, however, is less apparent in his lectures than that subtle sarcasm and invective of which he was such an accomplished master. As to the teaching for which he was so blindly abused, Sir William Savory, in his sympathetic biography, says he was far in advance of his time; the doctrine he exposed has become a dogma of the past. Lawrence inquired, "Where shall we find proofs of the mind's independence of the body? of that mind which, like the corporeal frame, is infantile in the child, manly in the adult, sick and debilitated in disease, frenzied or melancholy in the madman, enfeebled in the decline of life, doting in decrepitude, and annihilated by death?" His reply is, Nowhere: all life depends on organisation, as the light of day upon the sun. Philosophy, since Lawrence's time, has shown the problem is not quite so simple. We know more of the untrustworthiness of our knowledge of matter as matter than he did. We should agree with him, "ignorance is preferable to error; he is nearer to truth who believes nothing than he who believes what is wrong." Materialism held the field in Lawrence's day. Idealism, thanks to the belated influence of Berkeley and Spinoza, and more modern thinkers, has knocked the bottom out of materialism, and the relativity of all knowledge goes behind the reckonings of the mere materialist. But then, as now, opinions were denounced because they were dangerous, not because they were erroneous, and such mock morality was fair game for Lawrence's satire. "The foundation of morality undermined," he cried, "and religion endangered by a little discussion and a little ridicule of the electro-chemical hypothesis of life! No, I shall not insult your understandings by formally proving that this physiological doctrine never has afforded, and never can afford, any support to religion and morals; and that the great truths, so important to mankind, rest on a perfectly different and far more solid foundation."

I would, therefore, lay it down, in the first place, that progress in knowledge of mental phenomena and mental disease is impossible so long as authority requires their study to be subjected to, and fitted in with, some theological system. Demonology, as a pathological doctrine, has had its day; the laws enacted against witchcraft in the time of the Stuarts, and the spirit that occasioned them are, or ought to be, as dead as Queen Anne. Our methods of study here, as elsewhere, must be by induction and deduction, by synthesis and analysis, by investigation of the objective facts of the nervous system, and the subjective experiences of the mind, regardless of consequences, and with a single eye to what is true.

Another factor which has been operative in the direction of attracting more attention to the lot of the insane, and consequently, though indirectly, to the causes of lunacy, has been that movement so well called the "new philanthropy," whose rise may be dated from the latter half of last century, and which in the present century has been codified, and perhaps thereby unduly fettered, in the Acts relating to the provision for the poor and afflicted. Accommodation for the systematic care of persons of unsound mind in this country generally, and in London, has been mainly of recent date. It is true that, in 1537, a house was set apart in Bishopsgate for the maintenance of some fifty lunatics, and that in 1675, a Bedlam was established at Moorfields, but the evidence of any humane movement for the amelioration of the condition of the insane is scanty until we near the close of the eighteenth century.

Hogarth, who died in 1764, has recorded on canvas the scenes of squalor and neglect which these *Bethlehems* of the last century concealed within their walls. What a study in pathological portraiture is that "scene in Bedlam" in the *Rake's Progress*. There we behold on one small canvas a crowded panorama of London's intellectual refuse; there sits apart the large-brained melancholy with clasped hands, listless and unaffected by the barking dog; above him the general paralytic self-donned with dunce's cap, and tawdry sceptre dilating of his wealth and power. The solitary cell to the left shows, stretched on straw, the last stage of senile dementia; in the forefront the manacles are being applied to the limbs of the maniac, whose head is examined by the apothecary as if in dubious anticipation of our modern methods of cerebral localisation. The final satiric touch is given by the visit of two ladies of quality and fashion, inspired by prurient curiosity; and, perhaps, the one redeeming feature of the whole is the mob-capped nurse, whose ministrations serve as an earnest of that great reform in the care of the sick and insane which it has been the privilege of our era to have witnessed.

In 1792, Pinel was unchaining the patients in Bicêtre, and the humanitarian outburst which had inspired Howard to reform our prisons, Romilly to revise the barbarous criminal code, and Wilberforce to enfranchise the slave, had, through the Quakers of York with Tuke as the pioneer, initiated a revolution in asylum management. "Non-restraint" was the watchword of the new system, which found its complete recognition at Hanwell Asylum under Conolly between 1839 and 1842. Hanwell is thus a connecting link between the old and the new methods of dealing with the insane, and it is now under the same management as that new Lunacy Palace at Claybury recently opened by the London County Council, and which comprises all that modern science could require and the new philanthropy demand. Although this development of humanitarianism which I have sketched had for its object the amelioration of the treatment of insanity, it has had, indirectly, a far reaching influence upon the study of its causes and prevention. The origin of the old Bedlam was mainly traceable to the desire to remove the scandal of neglected imbeciles from the public eye, and the shut imagination of the time was easily salved if no gross neglect or public exhibition took place "to the high displeasure of God and damage to the King's people." Now-a-days, thanks to the great confidence our asylum management commands, a large number of early and acute and slight cases are admitted, which previously would have remained outside, the hopeless and helpless folk are in relatively smaller proportion, amenable cases, and cases yet in an amenable stage come under observation, and our medical superintendents are not depressed and hampered by a dreary round of treatment with little else but euthanasia as its goal, but are quickened, inspired, and cheered by the knowledge of successful issues, of sanguine prognoses, and by a feeling that, in part at least, this destroyer of man's mind is within their power and control.

Thus it comes about that in our modern asylums there is a vast mass of mental aberration, of infinite variety of nature and degree, available for the philosophic pathologist to observe and generalise upon, and I turn to consider how far this so-called "clinical material" is utilised in the interests of society and science for the advance of knowledge calculated to prevent or to relieve.

According to the forty-eighth report of the Commission of Lunacy there were, on January 1st, 1894, 92,067 persons returned as of unsound mind in England and Wales, of whom 83,025 were pauper cases, 8311 private cases, and 731 were criminals. The pauper lunatics of London, for whom the London County Council is responsible, were, on January 1st, 1894, 11,668; they are maintained at the five asylums at Hanwell, Colney Hatch, Banstead, Cane Hill, and Claybury at a cost of between £300,000 and £400,000 per annum: we are about to build a sixth asylum at Bexley, as even now the demand upon our beds is greater than the supply. I pass by the question of the real or apparent increase of lunacy, interesting and intricate as that question is, and I also pass the question of the desirableness or otherwise of private asylums, and proceed to inquire what is being done by way of pathological investigation at the county asylums of London with their 11,000 lunatics; how this compares with work done elsewhere; and what proposals have been or are being made with a view to stimulate further advance?

The first County Council considered a plan prepared with infinite pains, as the result of much inquiry, by Mr. Brudenell Carter for a hospital for the insane—the report on the subject is full of interesting matter, but the plan did not commend itself to the Council, and it was accordingly dropped.

When the second County Council came into office, now nearly three years ago, the question was again mooted, and a sub-committee was appointed on November 1st, 1892, and its terms of reference were—

"To consider as to whether a pathologist should be appointed at each asylum, or whether one or more pathologists should be appointed and their services be rendered available for all the asylums; and also as to the precise nature of the duties to be performed by the pathologists, the salary attaching to the office, and upon any other details that may arise during consideration, with power to confer with the medical superintendents."

I had the honour to be elected chairman of that sub-committee, and we felt it to be our first duty to ascertain the nature and extent of the pathological work at present carried on in the then four county asylums, and by a series of questions directed to the medical superintendents to obtain their views as to the direction in which any further development was required, and the practical advantages which such development might be expected to secure.

The following questions were accordingly addressed to the Medical Superintendents of the London asylums:—

1. What is the number of the post-mortem examinations made in your asylum each year since January 1st, 1889?

2. What is the nature of the various observations noted in each post-mortem examination? Is the report made in accordance with a prescribed form? (If so kindly forward copy.)

3. Is the present mode of examination in your opinion adequate or exhaustive?

4. To what extent are microscopical, chemical, or other elaborate methods of examination employed?

5. Are macroscopic and microscopic specimens preserved, and is any permanent record of them kept?

6. Please state the titles and references of all communications made by the members of the present medical staff of the Asylum bearing upon the pathology of insanity to any of the learned societies or medical periodical publications.

7. Do you think that beyond the routine post-mortem examination there is scope for a wider and profitable research into the pathology of insanity?

8. Is there reasonable prospect that such research would lead to improvements in the cure and prevention of insanity?

9. Have you any suggestions to make as to laboratory accommodation?

10. Will you state for the information of the Committee any general observations you may desire to make upon the matter referred to the Committee?

I will venture to read the replies to these ten questions by one of the Medical Superintendents who is well known to Bart.'s men and because his replies are the least sanguine of the four, and so present the case in its lowest terms.

Replies of Dr. T. Clay Shaw, Medical Superintendent of Banstead Asylum.

1. 1889—69 males, 46 females, total 115; 235 deaths. 1890—75 males, 79 females, total 154; 284 deaths. 1891—65 males, 64 females, total 129; 248 deaths. We never make a post-mortem without the consent of the friends. All *unclaimed* bodies are sent to the schools for dissection, a plan which reduces our number considerably. It is, however, a great benefit to the schools, and the withdrawal of the custom would be a great loss to the profession.

2. There is no printed form of book, but the examination is thorough, all the external appearances being first noted, and then every internal organ being noted whether healthy or otherwise. The spinal cord is *not* invariably examined. The condition of the various constituent parts of the brain is noted when affected, and if the other parts are healthy it is so stated.

3. I think that the present mode is adequate for ordinary asylum purposes, *i. e.* for verification of causes of death, ascertainment of unsuspected injuries. Such is the motive chiefly urged by the Commissioners in their demands for as many post-mortems as possible. Several things combine against a very exhaustive examination, *e. g.* it often happens that several post-mortems are on the same day; in many instances minute examination is impossible, because the bodies are not sufficiently fresh, owing to the difficulty of getting early examination. An exhaustive examination (including microscopical work) would occupy many hours, and as a rule (here at any rate) the "pathologist" has other duties besides those in the post-mortem room.

4. Only when so-called "interesting" specimens are seen is any special microscopical examination made. Ordinary section-cutting is not practised, and it is difficult to see what would be the advantage of it beyond familiarizing the pathologist with what he is already supposed to know.

5. When any interesting, *i. e.*, rare or well-marked, specimens are met with, I have generally sent them to the museum at St. Bartholomew's Hospital, as this asylum is closely identified with that school.

6. I wrote a paper on certain conditions of the ribs in the St. Bartholomew's reports, and we have used the laboratory for examination of blood and sputum, but I cannot point to any other recorded work in this branch unless I refer to a case of myxœdema, where we prepared the thyroid juice and examined the blood in the small bacteriological laboratory here. A paper was written on this subject and read before the British Medical Association in August. The work at this asylum, not directly connected with routine, has been chiefly in the direction of clinical teaching. Personally I have written many papers in the St. Bartholomew's Reports and the medical journals. At present I have no time to sit down and write a book on the subject of insanity.

7. So much pathology of the nervous system has been written in Germany and other countries, as well as to some extent in this country, that I doubt if there is much scope for profitable research in this direction. Probably the association of *physiological* investigation

with the *pathological* might lead to results in time, and more especially if the paths of normal brain action were brought into direct relation with diseased processes as in the experiments of Hitzig and Ferrier, but this requires the special knowledge of a *physiologist* as well as a pathologist. The diseased and broken-down brains of those who die in asylums give little scope for any original work beyond what has been already done.

8. I cannot point to any distinct system of cure or treatment from what we know of the pathology of insanity, except I refer to the slight improvement in some of my own published operations to relieve brain pressure, and to some cases of surgical interference in melancholia published in Germany. Until we have a better knowledge of *physiological* brain action I expect little from pathology. The elaborate brain sections of Bevan Lewis published in his book have led to nothing in the way of treatment.

9. If a specialist is appointed to do the pathology of the asylums, he would require a central laboratory and one, or perhaps two, assistants. Of course his work should not be allowed to interfere with any that the medical officers connected with the asylums might wish to take up. I mean that he should not necessarily have the right to appropriate any specimen that he liked, nor to clash with the superintendents in the disposal of the bodies of deceased patients.

10. I should say that a suitable man could be obtained for say, a salary of £600 to £700 a year. He would be able to give three or four days a week to the special study of pathology on the lines above indicated. I would deprecate the calling upon the special pathologist for "reports," and would leave him to announce results when he had matured them. In time something *might* result from this, but I am not very sanguine. I would still call the junior medical officer at the asylum the "pathologist," because it is I think of great advantage to have the post-mortems done by the same man, and the "junior" being the last appointed, comes with the most recent views from the hospitals, and not having so much to do in the wards is able to devote more time to the work. In this way it may occur that the Council may as it were develop a pathologist of its own. The existing opportunities for work are large, and there is little doubt that men will be found to take advantage of them, but I doubt if advance can be hurried, and I would prefer to let thorough provision for work at the asylums be made, and to wait a little time for development, rather than at once to establish a great departure, the success of which to say the least is far from certain.

The four sets of replies permitted the Committee to summarise conclusions as follows:

(1.) That post-mortem examinations are made in a large proportion of the deaths in the asylums. In the year 1891 there were no fewer than 583 examinations made in the four asylums.

(2.) The post-mortem examinations are conducted in the usual manner and the records recorded, though not on any uniform plan for all the asylums.

(3.) The post-mortem examinations as conducted at present are to be regarded as adequate for purposes of ascertaining the causes of death and the presence or absence of injury, but are not exhaustive in a pathological sense. The clinical and other work of the medical officers, the absence of suitable laboratory accommodation, and the amount of material being assigned as the causes which prevent more exhaustive research.

(4.) For these and other reasons, microscopical, chemical and other elaborate methods of examination are not resorted to except in special cases.

(5.) There is no attempt to preserve specimens in a museum, or to catalogue them, though in some cases specimens are forwarded to medical schools.

(6.) Several valuable communications on the pathology of insanity have been made to medical periodicals and societies by officers of the asylums, but the pressure of administrative duties has been assigned as precluding such work in some cases.

(7.) There is general agreement as to there being scope for wider and profitable research into the pathology of insanity beyond the routine post-mortem examination, and it is to be borne in mind that to be productive of fresh knowledge association of physiological and pathological research is essential.

(8.) Research conducted on such lines is likely to lead to some improvement in the treatment of the insane, although it would be hazardous to prophesy that direct and definite advance could be speedily assured.

With a view to obtain further information, the Sub-committee obtained information from provincial asylums (notably those of Yorkshire and Lancashire where much good work has been done), and

also from abroad. By the kindness and courtesy of Lord Rosebery, who was then at the Foreign Office, representatives at European capitals and at Washington were asked to endeavour to obtain information, and the department was furnished with 100 copies of the questions sent to the medical superintendents for this purpose.

The Sub-Committee felt that the information received enabled them to report that in their opinion there was room for more thorough pathological research in connection with the county asylums, and that such research might lead to information likely to be valuable in the treatment and prevention of insanity.

The Sub-Committee considered that the advantages in favour of appointing one pathologist available to all the county asylums far outweighed any that could be suggested in favour of one pathologist to each asylum. There is no necessity to supersede the present practice in accordance with which the routine post-mortem examinations are conducted by the assistant medical officers, but there should be superadded a pathologist of standing and position who should have access to pathological material in all the asylums, and who would, no doubt, direct and encourage research by the younger men who are resident at each asylum. There would, however, be the necessity of providing him with adequate laboratory accommodation adapted both for physiological and physical examination and also for elaborate microscopical and chemical investigations. That such laboratory should be closely connected with some one asylum we regarded as essential in order that clinical study may also be available to him. The fact that Claybury Asylum is still in course of equipment and affords ample room for such laboratory suggested to the minds of the Sub-Committee that there would be great advantages in attaching the pathological department to it; we thought, however, before finally recommending this course, it would be essential that the Claybury Sub-Committee be requested to consider the proposal, and, if it were favourably entertained, to direct the architect to prepare the necessary plans and also submit an estimate to the Asylums Committee.

We further reported that, in our opinion, in order to secure a man of sufficiently wide knowledge and capacity for so important a post it would be necessary to offer a substantial salary. This, in our opinion, should be about £700 per annum. We mentioned this sum on the assumption that residence at the asylum would not be required; should this, however, be eventually considered desirable a proportionate revision of the amount would be necessitated.

The pathologist should be required to devote himself exclusively to the work, to report from time to time, to publish the various researches in which he has been engaged, and also those which other medical officers have carried on under his guidance. He should not have charge of, nor interfere with the clinical treatment of the patients, and his work must in no way conflict with that of the medical superintendents.

These recommendations have been finally approved by the L.C.C., the laboratory at Claybury is in course of erection at a cost of £4000, and the appointment of the pathologist will shortly be made.

It now remains for me to put together a few points which in my judgment must be borne in mind by those who shall in the future seek to explore and illumine this dark continent of mental disease. In the first place it is needful to remember that pathology is not post-mortem making, neither is it microscopizing, nor even test-tubing; these are helpful and needful adjuncts, but they do but touch the fringe of the question. It is as idle to seek a true pathology of the mind by living in the post-mortem room as it was of the old Oriental physicians to endeavour to understand the constitution of man without dissection. A pathologist must take a broad and philosophic survey of his subject; racial, social, hereditary, historical, and geographical considerations must enter into his reckoning; he must be a psychologist, acquainted so far as is yet possible, with the working of the normal mind. In other medical matters we consider it expedient for the student to anticipate morbid anatomy by normal histology, and for physiology to precede pathology. While agreeing, and indeed emphasising the fact that there is no hard-and-fast line between the two sets of phenomena, and insisting that disease has often physiological beginnings, and that healthy habits may have inherent pathological possibilities, yet I cannot understand the methods of those who think psychology has no part in medical education, and that its very elements and those of formal logic should be accounted unnecessary or superfluous even for an M.D. of London.

Then, again, a crude materialism must be avoided, such as that which led Carl Vogt to declare the brain secreted thought as the liver secreted bile, or like that absurd elaboration of phrenology which led Gall and Spurzheim in the beginning of this century, and George Combe and others in the '40's, to find the whole duty of man in the investigation of the bumps of his cranium.

In a similar manner must those physico-psychic phenomena, such

as mesmerism and electro-biology, be duly and wisely observed but kept in their proper relationship and not permitted to enthral and vulgarize the mind. The physico-chemical school of thought reached its zenith in the materialism of the end of the last century and the commencement of this. Mathematical explanations of disease were offered, mind was reduced to the dance of molecules, stories of stone-solvents filled the pages of the Royal Society's *philosophical transactions*, and engrossed the attention of bishops and of Parliament. Even John Hunter believed in the influence of the moon on the mind. Mesmer, who died in 1815, argued for the influence of the stars upon mankind, and wrought miracles with magnets. The face of the learned and eloquent Elliotson should serve to point a moral and adorn the tale.

Dr. Clape Shaw seemed to think in the replies I read to you that the whole field of anatomy of the nervous system had been covered; but it is well to remember the work of Sir C. Bell, embodied in his idea of a new anatomy of the brain, and published in 1811; and the methods of Majendie and Marshall Hall, along with the intuitive speculation of Johannes Müller, which may well serve as guides to fresh acquisitions of knowledge. The study of the anatomy of the nervous system has been in the past conducted mainly from a static standpoint, and though a dynamical value has been added by the work of Du Bois Raymond, Flourens, Bernard, Helmholtz, Goltz, Weber, Fechner, and others, it seems to me that Charcot's anatomo-pathological method, so called for want of a better name, opens up one of the most fruitful and promising avenues of research in this direction. No one can read the brilliant lectures of Charcot without the feeling that out of the mental and moral dustbin of Paris, such as Salpêtrière used to be, he, by the impact of his genius has, as it were, struck fire out of flint.

In the able treatise of Gowers on diseases of the nervous system, we see again how neuro-pathology has advanced by vigilantly tracking down clinical symptoms to their anatomical accompaniments. Gowers indeed states (p. 91): "with the much disputed question of the relation of the mind to the brain, the physician has nothing to do," and thus avoids the predicament of Lawrence, though somewhat violently shutting the door upon first principles which must ever recur to the philosophic mind, and which cannot be thus summarily dismissed.

In addition to a knowledge of the history of philosophy whereby modern psychology has reduced physical phenomena to "permanent possibilities of sensation," and mental phenomena to a "series of states of consciousness," the mental pathologist would do well to familiarize himself with the analysis of mind into intellect, sensations, emotions and will, and the further resolution of intellectual processes into consciousness of similarity, consciousness of difference, and retentiveness. Neither should he neglect the assistance of formal logic in arranging correct nomenclature, definitions and divisions, or classifications of his subject. Most of the extant classifications of insanity are hopelessly illogical—the various genera and species being not mutually exclusive. Take for instance that of Guy and Ferrier, which, it is true, the authors disclaim as a "condensed philosophy of the mind," but having divided up unsoundness of mind into amnesia, dementia, and mania, they give idiocy, imbecility, and cretinism as three species of the first; and chronic, senile, and general paralysis as three species of the second. A better procedure would have been to classify mental disorders in accordance with the elements of mind, intellect, will and emotions, while illusions may be regarded as sensual aberrations.

Then, again, the effect of definite chemical agents upon the mind offers a likely source of fresh knowledge; the effects of lead, mercury, arsenic, silver, zinc, copper, of phosphorus, of coal gas, alcohol, chloroform, nitro-benzol, robiture. The literature of the subject is at present scattered, and the influence of selective poisons on the nervous system, or certain parts of it, requires to be further worked out. Similarly the temporary and abiding effects of heat and electricity require further elucidation. A notable recent triumph has been added to therapeutics by the association of myxoedema with thyroid change. As I was the first in this country to successfully transplant the thyroid of the sheep into the human subject, I am glad to record my belief that all the beneficial effects may be obtained, certainly in no less degree, by the ingestion of the dried gland. Those who have watched a case under treatment cannot but have felt that in the mental improvement effected by mere bits of dried sheep's gland, there is the basis of hope for the future in reclaiming yet other cases of forlorn prognosis within the compass of successful treatment. I said that geographical and historical considerations required to be looked into in following the ætiology of mental disorder. Hirsch speaks of the prevalence of hysteria in the Baltic provinces and among the interesting Samoyedes where, alone in Europe, paganism still reigns.

Not less remarkable are the "epidemic psychopathies" so called, associated with religious revivals in former as well as in recent times; witness the dancing frenzy of German mediævalism, the tarantism of the sixteenth century Italy, the preaching disease of Sweden in 1854, '58, and '67, the "jumpers" in Cornwall in 1760, and evidence is not wanting to show that yet more recent revivals have supplied their quota to the inmates of asylums. Mimicry and suggestion here doubtless play an important part in propagating these diseases which lie mainly within the region of the emotions, and which a fanciful pathology ascribed to the vagabond propensities of the uterus. I feel that alike in psychological and psychiatric works too little attention has been in the past given to the emotions. As a rule their physical relationship to the senses is dwelt upon, and they are usually catalogued with these under the undignified and equivocal heading of "the feelings." Their educational and moral side is vaguely and meagrely treated, their affinity to the appetites is enlarged upon, but scant courtesy is usually paid to that side of the mind which is surely hardly if at all behind the lordly intellect in mental sovereignty. Comparative psychology may here give a valuable sidelight by the study of mind in lower animals, and especially their instincts or untaught abilities often more pronounced and more precocious than in the lord of creation. As with us, pleasure and pain are the goads to action, and the philosophic pathologist will do well to study in its simplest expressions the influences of motives upon the will with their bearing upon spontaneity and necessity, that battle-ground of the schoolmen. Müller says: "The idea of self and of individual existence, is the fundamental theme of all the ideas combined with emotions; but the idea of self and of a change suffered by it, does not without the state of striving in the mind, constitute passion." Perverted egotism is often at the root of unsoundness of mind, witness cases of so-called "insanity of persecution," "anorexia nervosa," "neurasthenia," in some of its manifestations tailing off imperceptibly into what will pass as sanity or be set down charitably to boredom or idiosyncrasy. It is interesting to note in this domain wherein æsthetics and physiology meet to find the matter-of-fact Müller devoting four or five pages of his work to a citation of what he justly calls the "masterly exposition of the emotions" by the transcendental Spinoza, and I would urge all students to read and ponder the aphorisms set out in the ethics of that seventeenth century philosopher; and finally, for I must conclude these fragmentary jottings (for the incoherence of which I must plead the lack of any consecutive leisure), the mental attitude of the mental pathologist should be that which Faraday depicted as essential for the true philosopher. "He should be a man willing to listen to every suggestion, but determined to judge for himself. He should not be biased by appearances, have no favourite hypothesis, be of no school, and in doctrine have no master. He should not be a respecter of persons; truth should be his primary object. If to these qualities be added industry he may indeed hope to walk within the veil of the temple of nature." Sir William Hamilton exclaimed, "in nature there is nothing great but man, in man there is nothing great but mind." How great then should be the mental altitude of him who should seek successfully to unravel and minister unto "the mind diseased."

Choice of Microscope: Hints to Students.

STUDENTS make a few common mistakes in buying their first microscope. They either spend five to ten pounds on a handsome but useless piece of brass, nice to look at and worthy of an F.R.M.S., or they purchase an instrument which will answer their immediate wants and purpose, *i.e.* simple histology, but which is practically useless for their later and more advanced studies. While buying a microscope the student should see that he gets an apparatus which will last him throughout the period of his professional life; he may begin with a simple instrument, but it must be capable of improvement. Ordinarily he or his mentor buys an instrument which cannot be built up to suit the requirements of the moment;

and when the student reaches that stage of his curriculum when a sound microscope is necessary, he finds that he is the proud possessor of an instrument quite unfit for pathological or bacterioscopic work. Being often asked what microscope to get, and how to buy it, I shall use this opportunity of giving one or two hints.

1. The microscope must have a coarse adjustment by rack and pinion, and a fine adjustment by micrometer screw.

2. It must be so arranged that an Abbé condenser can be fitted on at any time.

These are the most important conditions. The rest depends on the amount of money available. But it is simply folly to buy an instrument which does not possess the above qualities.

As to the makers, speaking from personal experience, there are only two whose microscopes I venture to recommend, viz. Leitz and Zeiss. Leitz is the cheaper of the two, and as I cannot detect any difference between his ordinary instruments and those by Zeiss, I give him the preference. If it is a question of Apochromatics, Zeiss holds the field. Personally, for all laboratory work, I prefer Leitz's microscopes, and invariably recommend them now.

(i) A complete Leitz (see *Catalogue*, 1894, p. 23, No. 5), with oil immersion, and all that is required for advanced work, can be obtained for £17 or for £15 (see p. 27, No. 9).

(ii) The first year's student has no use for oil immersions, and he can get the same microscopes without the additional parts for £8 5s. or £7 5s. He may add later on the Abbé condenser, &c., and purchase an oil immersion.

(iii) Leitz's oil immersions are excellent in quality and amazingly cheap (£5), Zeiss's ordinary oil immersion being £8.

Apochromatics being out of place in the hands of students, I need not say anything about them, but for them I should go to Zeiss. It is to be regretted that our English makers will not be taught. Leitz is the cheapest manufacturer at present, and his instruments are so good at the same time that we are perforce drawn to him. Frequently students have asked me to order microscopes for them from Leitz. Though I willingly assist them, I find that it involves a serious loss of time and a certain amount of vexation and annoyance. I have, therefore, made an arrangement with Leitz, according to which his microscopes and lenses may be obtained at catalogue prices from G. Goffi, Dr. Klein's laboratory assistant. I shall, of course, gladly give advice as I have done hitherto, and also will offer to examine the lenses afterwards. Good microscopes can be bought so easily if, at the outset, the student thinks of the future, that to me it is always painful to find men attending my laboratory compelled to use, if not to misuse, my own instruments and lenses. It is almost as if a clerk in the wards were to ask his physician for the loan of his stethoscope.—A. A. KANTHACK, M.D.

A Case of Scurvy Rickets.

By EDGAR WILLETT, F.R.C.S.,

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(From notes kept by ERIC FRANCE, M.B., House Surgeon.)



HE disease Scurvy Rickets is a particularly interesting one, and is of sufficient rarity to warrant the placing on record of any typical case.

D. S.—, a male child *æt.* 11 months, was brought to the Out-patient Department of the Belgrave Hospital for Children on December 28th, 1894. The mother was an intelligent woman, and was evidently in rather better circumstances than are the ordinary out-patient mothers. There was nothing important in the family history, it was an only child, and there was no syphilitic taint on either side. Till the commencement of the present illness the child seemed to have had good health, with the exception of slight attacks of diarrhoea and sickness when it was six months old. It appeared to have been fed on the breast until six weeks of age, but without any regularity as to time or amount; from six weeks till six months it was fed on boiled cow's milk and barley water in equal parts whenever it cried. As diarrhoea and sickness followed the mother was advised to try Nestlé's condensed milk, and this formed the chief food from six months to nine months, the condensed milk being used in the proportions of one part milk to eleven of water, the same irregularity as to time and amount continuing; from nine months to eleven months, *i.e.* the age on admission, an American artificial food known as "Rolled Avena" had been used in addition. It also transpired that during this time the child generally vomited after its food, but this was not regarded by the mother as anything abnormal. Anxiety was, however, caused by the child's increasing fretfulness, which was more marked at night, and which was no longer appeased by food. About a fortnight before being brought to the hospital the mother noticed that the screaming became louder when the child was moved, and that its legs appeared to be exquisitely tender. This condition became more marked up to the date of admission.

Condition on admission.—The child appeared to be fairly healthy; its muscles were rather flabby, the anterior fontanelles were still widely open, and there was some enlargement round the radial epiphyses, but there was no marked beading of the ribs, nor was there any sinking in of the sternum. There was no sponginess or tenderness of the gums, but this was not remarkable as no teeth had been cut. The internal organs appeared to be normal, the spleen was not enlarged, there was no marked anaemia, no hæmaturia, and no albumen in the urine.

The child lay with the legs hanging down, and both were exceedingly sensitive to the slightest touch; there was no paralysis. Just above the left knee there was a marked general swelling of the limb, extending upwards over the lower third of the femur; there was also a similar but rather less definite swelling just above the right ankle. The skin in these situations was slightly glazed, but not discoloured; the swellings were firm, and affected the whole circumference of the limb, and there was no fluctuation or soft spot to be detected. There were no signs of fracture nor of separation of the epiphysis. There was a trace of œdema. No other swellings were found in any other part of the body.

The measurements taken round the limbs were as follows:

December 28th.—1 inch above right ankle, $5\frac{1}{2}$ inches; 1 inch above left ankle, $4\frac{1}{2}$ inches; 1 inch above right patella, $6\frac{1}{2}$ inches; 1 inch above left patella, 8 inches.

Treatment.—The most remarkable point in the case was the effect of the treatment, which was strictly in accordance with that recommended by Dr. Barlow in his recent Bradshaw Lecture.* No medicine was given, nor was anything done or applied to the limbs, but great attention was paid to the diet; this consisted of fresh un-boiled undiluted milk, of which a pint and a half was taken in the twenty-four hours, together with two ounces of raw meat juice, about six ounces of sieved potatoes, and twelve grapes carefully stoned. Careful measurements were taken of the limbs each day, and in twenty-four hours the swelling above the left knee showed a distinct diminution in size, thus—

On December 29th the left knee measured $7\frac{1}{2}$ inches, *i.e.* $\frac{1}{2}$ inch less. The right ankle measured the same as on admission.

30th.—Left knee measured $7\frac{1}{2}$ inches. Right ankle, the measure-

ments were unaltered. The child was not so restless; it screamed less, took its food well, and had no sickness.

31st.—Left knee measured $7\frac{1}{2}$ inches. Right ankle unaltered.

January 1st, 1895.—Measurements remained the same, and the child seemed better generally.

3rd.—Left knee measured $7\frac{1}{2}$ inches. Right ankle measured 5 inches, the first noticeable diminution.

4th.—Left knee measured $6\frac{1}{2}$ inches. Right ankle measured $4\frac{1}{2}$ inches. There was very little tenderness of the legs now to be noticed.

7th.—Left knee measured $6\frac{1}{2}$ inches. Right ankle measured $4\frac{1}{2}$ inches, and the measurements were thus equal in both limbs. There was now no tenderness, and the child appeared quite well and contented, and was therefore discharged two days later. It will be noticed, therefore, that the measurements became normal on the eleventh day of treatment; also that the right ankle, which was only increased in size by five eighths of an inch, did not begin to decrease until the end of the sixth day; while the left knee, which was increased by one and a half inches, had actually decreased in size by a quarter of an inch at the end of the first twenty-four hours, and it continued to show almost a daily improvement. Throughout the stay in the hospital the child took all its food without any difficulty or evidence of gastro-intestinal disturbance. He has been brought to the hospital occasionally since, and the improvement had been maintained, the altered manner of feeding being of course continued by the mother.

It should be noted that the temperature on admission was 99° F., and that, with the exception of the evening of January 2nd, when, without apparent cause, it rose to $105^{\circ}2'$, falling again as suddenly the next morning, it remained throughout at or about the normal.

Very little comment is required on the case. To those who watched it the change in the general condition of the child at the end of ten days was very striking. In the light of the recent most instructive lecture by Dr. Barlow, already alluded to, supplemented by Mr. Marsh's paper published in the *British Medical Journal* of December 1st, 1894, the diagnosis was not difficult. The alternative diagnosis would have been acute periostitis, but the fact that two limbs were affected simultaneously, and in the neighbourhood of the epiphyses rather than in the centre of the shaft, together with the age of the child (only eleven months), was against this theory.

Notes.

PROFESSOR BURDON SANDERSON, who for some years has been Professor of Physiology at Oxford, has been appointed to the Regius Professorship of Physic in the University of Oxford.

DR. CHURCH has been asked to act on a committee of the Clinical Society of London to investigate the clinical value of the antitoxin treatment of diphtheria.

IT IS ANNOUNCED that Mr. C. B. Lockwood will give a course of lectures on "Traumatic Infection" on Monday, Wednesday, and Friday, beginning February 25th, at the Royal College of Surgeons.

DR. THORNE-THORNE, C.B., F.R.S., has been appointed Examiner for the D.P.H. Cambridge for the ensuing year.

DR. L. E. SHORE has been appointed an additional member of the special Board for Medicine in the University of Cambridge.

WE HEAR that a new edition of Mr. Bowlby's 'Surgical Pathology' will shortly appear.

DR. DONALD MACALISTER is now engaged with the third edition of the English translation of Ziegler's 'Text-book of Pathological Anatomy.'

* *British Medical Journal* for November 9th, 1894, p. 1029.

MR. A. F. STEVENS, who passed third into the Indian Medical Service in August last, has improved his position at Netley. He is second in the combined marks of the Examinations in London and at Netley.

* * *

We welcome a new addition to the ranks of Hospital Journals in the shape of the *St. Mary's Hospital Gazette*. We wish it every success.

* * *

MR. D'ARCY POWER has been nominated, by the Council of the University of Durham College of Medicine, Extern Examiner in Physiology for the Second M.B.

* * *

THE New Theatre has been the scene of an accident which, but for its timely detection, might have had serious consequences. On Thursday morning, the 31st ult., the nurse in charge noticed a slight smell of burnt wood on entering the theatre at 7 a.m., and the wardmaid, who habitually cleans the firegrate, complained of her inability to make it "shine," as it was still so hot, although the fire in it had been extinguished about 5.30 the previous evening. On opening a cupboard door between the fireplace and outer door at 9 a.m., the nurse saw smoke rising through the floor, and promptly gave the alarm. Several boards were then taken up on the landing close by, when volumes of smoke issued, filling the landing. A hand hose was applied under the boards, and by degrees the smoke cleared off. Further uprooting of the floor inside the Theatre was then proceeded with, but the cause of the trouble was not arrived at till the prettily tiled hearth was reduced to a ruinous heap, when it was discovered that the fireplace had been built over a wooden beam which had ignited, and must have been smouldering some little time. To uproot a mosaic floor is not light work, and cannot be done in a few seconds, but the men worked hard, and aided by the hand hose, which could be inserted beneath the flooring, the danger was soon overcome. It is useless to dwell upon what "might have been," we can only congratulate our Hospital on the escape it has had from a terrible disaster. The ceiling over the staircase below the Theatre was very much damaged by the water. An iron girder has replaced the offending beam, and it is to be hoped no further alarming accidents will happen there.

Amalgamated Clubs.

NEW MEMBERS.

H. Boulton. G. S. A. S. Wynne. R. A. Yield.
H. W. B. Shewell. J. J. Scrase.

FINANCE COMMITTEE.

At a meeting of the Finance Committee held on January 28th, 1895, it was reported that the School Committee have expressed approval of the date suggested for the formal opening of the new ground, viz. Saturday, June 8th. A suggestion was made that the proceedings on that date should close with a dinner of members of the Amalgamated

Clubs in the evening, and members of the committee were asked to ascertain the views of the members on this point.

The question of the Amalgamation Colours, which had been referred to a special sub-committee, was fully discussed upon a long and careful report from the sub-committee. It was resolved that G. Lewin be appointed outfitter to the Amalgamated Clubs, and that members be supplied with the Club blazer only on an order from the Secretary of the Amalgamated Clubs. It was decided that there should be two blazers—one of plain black, with the Hospital shield worked in black and white silk on the pocket, and with brass buttons—which may be worn by any member of the Amalgamated Clubs; and a second of broad black and narrow white vertical stripes, with the Hospital shield on the pocket, worked in black and white silk,—to be worn only by those members who have represented the Hospital in any of the following Inter-Hospital competitions, viz. Rugby Football, Association Football, Cricket, Tennis, Athletic, and Water Polo. Details as to a sash and a hat-band, &c., were referred back to the sub-committee to decide.

ASSOCIATION FOOTBALL CLUB

Owing to the severe weather which lasted throughout January, only two matches were played, these being against Ilford in the London Senior Cup Competition. The first of these two matches was played at Ilford on January 19th, and after a fast game the result was a draw—one goal each. Bart's scored in the first half, and held their own until five minutes before time, when Ilford just managed to equalise from a corner kick. The match was replayed on the following Saturday, on our own ground at Lower Edmonton, when the Foxes kindly consented to lend us their goal-nets for the occasion. The ground was very hard, but both teams considered that it was fit to play on. This time, again, it nearly ended in a draw, as until within five minutes of time the score was two goals all, but the Ilford forwards pulling together at the last managed to score another goal, and thus won by three goals to two.

FIXTURES FOR FEBRUARY.

Sat., Feb. 2.	Polytechnic	at Merton Hall.
" "	2.—St. John's College (Battersea)	" Edmonton.
Wed., " 6.	Vampires	" Norbury.
" "	6.—Hermosa School	" Ealing.
Sat., " 9.	Gravesend United	" Gravesend.
" "	9.—Crouch End (Reserves)	" Edmonton.
Wed., " 13.	London Hospital (2nd)	" Edmonton.
Sat., " 16.	London Welsh	" Edmonton.
Wed., " 20.	Aldenhams School	" Aldenhams.
Thurs., " 21.	Casuals	" Leyton.
Sat., " 23.	Reigate Priory	" Reigate.
" "	23.—Old Cholmeleians	" Edmonton.

LONDON SENIOR CUP.

Jan. 19th.—ST. BARTHOLOMEW'S HOSPITAL v. ILFORD.

This tie was played on the Ilford ground before a good number of spectators. Both teams were very evenly matched, each goal-keeper in turn having to save. Not many minutes after the game had started Robinson scored a good goal for Bart's, and thus gave them the lead. A shot from one of the Ilford forwards went into the nets, but the referee, Mr. F. J. Wall, gave it offside. The spectators did not seem very pleased with some of the referee's decisions about this time, and consequently the game had to be stopped for a few minutes, and one or two onlookers were warned. Bart's continued to keep the Ilford forwards in check until just before time was called, when four corners in succession fell to the Ilford team; and from a struggle in front of goal they just equalised by a rather weak shot. As it was too dark to play extra time, the match was ordered to be replayed on the following Saturday.

Team.—E. H. B. Fox, goal; R. P. Brown, J. S. Mackintosh, backs; W. H. Pope, C. C. Costin, H. J. Pickering, half-backs; A. Hay, C.

A. Robinson, right wing; J. F. Fernie, centre; E. H. Fryer, E. W. Woodbridge, left wing; linesman Mr. C. H. Hopkins, referee Mr. F. J. Wall.

Jan. 26th.—ST. BARTHOLOMEW'S HOSPITAL v. ILFORD.

Bart's having choice of ground this time, the replayed tie took place on our ground at Edmonton. The ground was very hard, and the weather being exceedingly cold only a few spectators appeared on the ground. At first Ilford pressed, but Bart's after a time settled down, and repeatedly attacked the Ilford goal, but could not manage to score. Ilford then obtained a free kick from hands, from which they scored their first goal. Another "hands" against Bart's looked dangerous, but Hay intercepted the pass, and with a splendid run right down the field centred to Fernie, who was well up, and the latter scored for Bart's, making the scores level. Each side then scored again within five minutes, Pickering getting the Bart's goal after some very neat play. At half-time the score thus stood two all. On resuming play, Bart's had the best of the game for some time, and Woodbridge sent in a very hot shot, which struck the cross-bar and went out. Just before time the Ilford forwards broke away, and from a good centre they just managed to win the game by three goals to two.

Team.—E. H. B. Fox, goal; R. P. Brown, J. S. Mackintosh, backs; W. H. Pope, C. C. Costin, H. J. Pickering, half-backs; A. Hay, C. A. Robinson, right wing; J. F. Fernie, centre; E. H. Fryer, E. W. Woodbridge, left wing.

Record up to date.

	Played.	Won.	Drawn.	Lost.	Goals.	
					For.	Against.
First Eleven	19	10	5	4	54	51
Second Eleven	18	11	5	2	56	30

Ibernetian Society.

THE tenth ordinary meeting of the Society was held on Thursday, January 17th, Mr. Cross in the chair. Mr. MacAdam Eccles read a very interesting and instructive paper on "The Mechanical Treatment of Hernia;" he showed the various appliances used by the Truss Society, and illustrated his paper by showing a large number of cases.

The eleventh ordinary meeting of the Society was held on Thursday, January 24th, Mr. Meakin in the chair. Dr. Hamer read a paper on "The Mortality in Unhealthy Areas of Towns." He compared the present with the older sanitary arrangements, and mentioned the chief hygienic improvements.

The general meeting for the quarterly sale of papers was held on January 31st, Mr. Barron in the chair. The sale realised £1 15s. 8d.

The twelfth ordinary meeting was held on January 31st, Mr. Meakin in the chair. Mr. Bailey read a paper on "Enterectomy," in which he traced the history of intestinal surgery, and compared the latest methods for resection of the small intestine.

The thirteenth ordinary meeting of the Society was held on Thursday, February 7th, Mr. E. W. Cross in the chair. Mr. W. B. Paterson read a paper on "Medical and Surgical Aspects of Dental Caries." The immediate and predisposing causes and sequelae of this disease were dealt with. An animated discussion followed the paper.

It is to be regretted that at the last three meetings the attendance has been extremely small. Doubtless the inclement weather in some part accounts for this.

The New Operating Theatre.

THE long-talked-of New Theatre is an accomplished fact at last; Mr. Lockwood performed the first operation in it on December 11th, 1895.

It is built out from the top floor of the surgical or east block, between the lift and the old Coborn kitchen. Radcliffe B. is the new Coborn, the old ward is unused. The lift brings the patients to a large landing on the top floor, and they wait in the bright little room which used to be Sister Coborn's.

The New Theatre is an irregularly-shaped square room. The walls are completely tiled with square, glazed white tiles. The floor is level and covered with stone mosaic. The roof is high-pitched, sloping from a central ridge; the entire outer slope is constructed of glass, the inner slope is smooth plaster, painted white.

Accommodation for about sixty onlookers is provided by four rows of straight iron tiers placed against each of the side walls. The view of the operation obtainable is hardly an ideal one. The light is magnificent, the surfaces of the walls, &c., are excellent, allowing the entire theatre to be daily hosed if necessary.

The only structural alteration we could suggest would be that the corners might have been rounded.

The ventilation of the theatre is somewhat troublesome; when the windows are opened, soot quickly covers everything, the chimneys of the block being quite close to the upper window. Hot-water pipes heated from the Sitwell Ward kitchen, and an open fireplace keep the temperature of the room up to the requisite standard.

The sink and two washing basins are placed on the outer wall, the waste-pipes from them run along close to the wall. Ordinary hot and cold water taps are fitted; foot taps would be an improvement. The present supply of hot water is inadequate, and has to be supplemented by cans of hot water brought in from the wards. The water is heated by means of boilers in the adjacent wards; this means that large fires have to be kept up in the ward kitchens; in summer this will cause much discomfort. There is no arrangement for the supply of sterilised hot water.

We would suggest—(1) That the hot water and waste pipes should be placed further from the walls, so that they could easily be cleaned. (2) That an ample supply of ordinary hot water be provided by a separate boiler not heated by ward kitchen fires. (3) That some apparatus, like the excellent one made by the Berksfeld Filter Company, for the continuous supply of sterilised hot water, should be fitted up. Artificial light is provided by a central gasalier with four powerful Argand burners. We understand that electric light is to be used as soon as the arrangements for the Hospital are completed. The present operating table is to be replaced at an early date by a Julliard-Socin table, imported from the makers in Switzerland.

There are three other tables, all metal and glass, and fitted with castors. One, 18 inches wide, made in the shape of a quarter of a circle, is placed behind the surgeon during an operation. It has on it his instruments, ligatures, and a bowl of antiseptic lotion; it also prevents any onlookers from getting too close to the field of operation. The other two tables are oblong in shape, and are for bowls, sponges, towels, dressings, splints, &c.

The irrigator is a glass one fitted with a cover, of Mr. Harrison Cripps's pattern; a rope and pulley from the roof allow it to be raised or lowered as required. Six large glass tubs, with glass taps, containing boracic acid, izal, perchloride of mercury, and carbolic acid lotions, are placed on a wooden stand near the outer wall. A Reverdin's stool is provided for perineal and rectal operations.

There is no steriliser for towels or dressings; they are brought up from the old theatre in Schimmelbusch's kettles.

The instrument room is a small one, lighted from the roof, with an open fireplace. It opens into the back of the theatre. The instruments are kept in a glass and mahogany cupboard. The steriliser is of the fish-kettle pattern. When the water boils in it a lot of steam is given off, and as no provision for the exit of this has been made, the result is that the paint on the ceiling is already beginning to peel off in large flakes; this cannot fail to be detrimental to the instruments. We are glad to hear that means are to be taken to obviate the steam trouble.

The washing accommodation is not perfect. A small porcelain sink is placed on a table, the waste-pipe from it emptying into a tub underneath. Cans of hot and cold water are brought in when required. We regret to learn that a proper sink cannot be provided on account of the structural conditions of the room.

In considering the merits of the new theatre, one must bear in mind that it is intended partly for purposes of instruction and demon-

stration, and is not, like some of the modern Continental theatres, a mere room for operating in. It is a great improvement on the old theatre; and when the few defects in detail have been remedied, it will be a theatre of which we may all be proud, and which will be worthy of the best surgical traditions of our Hospital.

Appointments.

ATKINSON, H. CROWLEY, L.R.C.P., M.R.C.S., has been appointed House Surgeon to the Warneford Hospital, Leamington.

SHEARS, W., M.B.Lond., L.R.C.P., M.R.C.S., has been appointed Junior House Surgeon to the Scarborough Hospital and Dispensary.

BAILEY, W. H., M.B.Lond., M.R.C.S., has been appointed Medical Officer for the East Dulwich District of the parish of St. Giles, Camberwell.

BROOKSBANK, H. L., B.A., M.B., B.C.Cantab., has been appointed House Surgeon to the Victoria Hospital for Children, Chelsea.

WEBER, F. P., M.D., M.R.C.P., has been appointed Physician to the German Hospital, Dalston.

CURRIE, J., M.B.Lond., has been appointed House Surgeon to the Beckett Hospital and Dispensary, Barnsley.

LLOYD-JONES, E., has been appointed Pathologist to the Addenbrooke's Hospital, Cambridge.

MARSH, N. P., M.B.Lond., M.R.C.S., has been appointed House Physician to the Liverpool Children's Hospital.

ELLIOTT, JOHN, M.D., B.Sc.Lond., M.R.C.P., F.R.C.S., has been appointed Honorary Consulting Physician to the Chester Infirmary.

Examinations.

M. MARTIN, A. M. Dalzell, G. W. Stone, H. E. D. Lloyd, P. L. Vawdrey, and L. E. Whitaker have passed in Biology at the First Conjoint.

The following have passed the First Conjoint in Bones, viz.:—W. G. Hamilton, N. H. Joy, M. M. Martin, A. L. Scott, and G. W. Stone.

J. W. ILLIUS, P. Tatchell and A. L. Vaughan have passed the First Conjoint in Chemistry and Physics.

IN MATERIA MEDICA of the First Conjoint, E. H. Betts and B. J. Collyer have passed; and in Practical Pharmacy under New Regulations, H. R. Humby, S. Mason, R. Storrs, P. Tatchell, and L. E. Whitaker have passed.

At the Second Conjoint in Anatomy and Physiology, the following have passed:—J. Oldfield, G. A. W. Spear, H. J. Hutchens, F. Brickwell, W. Beckton, E. G. Klumpp, P. P. Lal-Atál, and A. W. Wilkinson.

IN PHYSIOLOGY of the Second Conjoint, A. J. Andrew, E. F. Crabtree, H. M. Waller, and W. Amsden have been successful.

W. AMSDEN and E. F. CRABTREE have passed the Primary L.S.A. in Anatomy and Physiology.

P. CATOR and A. H. FITZGIBBON have passed the First L.S.A. in Anatomy.

J. R. JEAFFRESON and H. M. Waller have passed the Primary L.S.A. in Physiology.

P. S. KESTIVEN has passed the Final L.S.A. in Surgery and Midwifery.

The following "Bart.'s men," having passed all the subjects of the Final Examination, have been admitted to the diplomas of M.R.C.S. and L.R.C.P., viz.:—H. A. Andrews, P. C. Barford, F. H. de G. Best, H. W. G. Bloomfield, E. W. Brewerton, D. W. Collings, E. F. N. Currie, M. D. Eder, L. T. Giles, T. Hampton, C. E. Hedges, B. M. Hughes, J. H. Hugo, J. S. Mackintosh, C. W. H. Newington, F. B. Norris, R. T. Porter, and F. W. Robertson.

E. FERRAND, M.R.C.S.(Eng.), L.R.C.P.(Edin.), and R. H. F. Jones, M.R.C.S., L.R.C.P., have taken the Diploma of Public Health of the Conjoint Board.

LAURANCE HUMPHRY, M.D., has been admitted a member of the Royal College of Physicians of London.

In the list of successful candidates for the second part of the third M.B. Cambridge, given in our last number, we unfortunately omitted the name of Mr. C. P. White.

Recent Martha Abdominal Cases.

Reported with the kind permission of Dr. CHAMPNEYS and Mr. CRIPPS.

Records.

- a. October 10th.—Three cases: 2—4.15 p.m.
 1. Double hydrosalpinx, right twisted pedicle, 45 minutes
 2. Simple multilocular ovarian cyst, 45 minutes
 3. Multilocular ovarian cyst with twisted pedicle, 25 minutes
 } 1 hr. 35 min., all recovered well.
- β. August 17th.—Unilocular ovarian cyst removed, 13 minutes. Left hospital September 9th.
- λ. May 21st.—Case in which girth at widest part 59 in., cyst 13 lbs., amount of fluid 50 pints = 75½ lbs. = 5 st. 5½ lbs.
- δ. November 9th.—Fibroid removed weighing 25 lbs., 2 hrs. 20 min., operation. Death from shock.

Interesting Anomalous Cases.

- a. Case of encysted tubercular peritonitis simulating inflamed cyst.
- β. Case of inflamed fibroid of uterus simulating cyst with twisted pedicle.
- γ. Case of epithelioma of cervix with malignant change in multilocular ovarian, and free fluid in peritoneum.
- δ. Case of increasing dyspnoea after hysterectomy for fibroid. Post-mortem—Pulmonary thrombosis.
- ε. Case of cyst due to distended hydatid of Morgagni simulating broad ligament cyst.

Statistics since October 1st, 1894.

Abdominal section 16—3 deaths (1. Shock; 2. Pulm. thrombosis; 3. Pleurisy). Ovarian cysts 6—all recovered. Ectopic gestations 3 (2 recent ruptures, 1 old)—all recovered. Hydrosalpinges 2—recovered. Fibroids 4 (2 died). Tubercle peritonitis 1—died = 16.

The Indian Medical Congress, 1894.



HE first Indian Medical Congress has been a great success. Held in Calcutta, from December 24th to 29th, under the Presidency of Surgeon-Colonel Robert Harvey, M.D., F.R.C.P., D.S.O., V.H.S., I.M.S., it brought together men of all services and non-official medical men from all parts of India, and for all too short a time removed the terrible drawback Indian service—civil particularly—has, viz. isolation of one medical man from another.

Some good work was got through, and the discussions on Indian fevers, cholera, and sanitary organisation were particularly interesting. Mr. Ernest Hart attended and criticised freely. If (in commenting on the paucity of original matter produced) he did not fully realise—what cold weather visitor ever does?—the enormous difficulties medical men in India have to contend with, due to an enervating climate, frequent transfers, overwork, especially excessive office and jail work, his criticisms were at any rate well meant, and may be productive of good. It was absurd, all the same, of him to speak of Indian medical men only just having begun to appreciate the importance of a pure water supply in the prevention of cholera, or of Laveran's malarial *amœbæ*, known in Europe for fourteen years, as only just having been seen by them. Both the necessity for pure water and the *rationale* of malarial infection have been recognised for many years in India, and it is not for any want of urging on the part of Indian medical officers that sanitary arrangements are still so backward. The lethargy and indifference of the people, and, more important still, their religious customs, strongly retard sanitary progress, and these points were entirely overlooked by Mr. Hart. What is the use of advising 300 millions of people to boil their water (apart from the question of fuel) when none—no Hindus, at any rate—will drink it when so boiled, and most appear to prefer it with a rich flavour of added excreta?

One matter came up at the General Meeting at the close of the Congress, which is of general interest to the profession. The law in India—as in England—is that no woman can be examined against her will for venereal disease, and no instance is known of a medical man having attempted to defy the law. Now, however, the Secretary of State has sent out a bill, which is at present before the Legislative Council, in which it is proposed to punish medical officers so acting by imprisonment up to two years, or by fine up to R. 500. At the General Meeting the non-official members of the Congress, therefore, proposed and carried unanimously the following resolution:—"That the unofficial members of this Congress desire earnestly to represent to the proper authorities in India and at home the mischiefs likely to result from the proposed Cantonment Act Amendment Bill, especially in so far as the third clause is concerned, which proposes penal legislation aimed at public medical servants, and implies that they cannot be trusted to carry out loyally and promptly the orders of Government on this subject."

Among the old Bart.'s men attending the Congress were Surgeon-Major C. Owen, C.M.G., C.I.E., I.M.S., Surgeon-Major G. Ranking, I.M.S. (see the 'Transactions,' General Purposes, and Reception Committees), Surgeon-Major Harwood, A.M.S. (in the General Purposes Committee, and Secretary to Section of Military Medicine and Surgery), Surgeon-Captain F. P. Maynard, I.M.S. (Local Secretary Bengal, and Secretary to Section of Medicine and Patho-

logy), Surgeon-Captain F. O. Kinealy, I.M.S. (Reception Committee and Secretary to the Section of Surgery and Ophthalmology), Surgeon-Captains B. C. Oldham, I.M.S., and R. Bird, and Surgeon-Lieutenant C. R. Stevens, I.M.S.,—eight in all.

A Teaching University for London.

SINCE the date of our last issue, very important events have happened in connection with the large and difficult question of reform of the University of London, so as to convert it into a "teaching" University by the incorporation of existing teaching institutions in London. It will be remembered by our readers that during last summer a meeting was held at the Royal College of Physicians, at which representatives of the various Institutions interested were present. On that occasion there was, with the exception of King's College, an absolute unanimity of opinion, and the following resolution was passed:

"That this meeting of delegates from Institutions mentioned in the Report of the Royal Commission on the Gresham University, desires to express generally its approval of the proposals contained in the Report of the Royal Commission, and would urge on the Government that a Statutory Commission be appointed at an early date, with power to frame Statutes and Ordinances in general conformity with the Report of the Royal Commission."

At the time when this resolution was passed it was too late in the Parliamentary Session to pass an Act for appointing a Statutory Commission; and it will be remembered one institution, viz., King's College, dissented. At that time, also, the University of London had not given a decisive answer, for although the election to the Annual Committee of Convocation admittedly turned on this question, and a large majority favourable to the scheme had been elected, Convocation had not formally accepted the scheme. Shortly afterwards the Senate passed a resolution expressing general approval.

Matters remained in this condition until January 22nd last, when three events of the greatest importance took place. First, King's College gave its assent to the scheme with certain provisos; secondly, Lord Rosebery received a large and influential deputation from all the public bodies favourable to the reconstitution; and, thirdly, Convocation, though somewhat tardily, gave its assent to the scheme by a majority of 31. This must be taken to be the official declaration of Convocation, notwithstanding the existence of a considerable minority. What effect this minority may have in delaying or obstructing the passage of a bill in Parliament remains to be seen.

We now have all the public institutions, including the

Senate and Convocation of the University, in line, and prepared to accept the principles of the scheme, and we hear that no opposition is expected from the provincial colleges. Under these circumstances—existing now for the first time in the history of the movement—we should imagine that the solution of the question of a Teaching University for London cannot be much longer delayed.

Obiter Dicta.

PNEUMONIA is a well-known complication of rheumatism. Rheumatic pneumonia has a lower temperature, less dyspnoea, and less cough than croupous. It is now a rare thing to see it, but when I was a student it was common. The signs of consolidation were often so extensive that it was a wonder how the patients could breathe. It was often accompanied by pericarditis. That it is now rare is not due to the treatment by salicylates, for pneumonia ceased to be common long before salicylates came into use. I have had a suspicion, but no more than a suspicion, that the then common use of mercury favoured it.—DR. CHURCH.

Do you Remember?

(A BALLAD.)

DO you remember, love,
That October long ago
When I pressed you for an answer,
And you said you thought 'twould snow?
How I hurried up to London,
To work and toil for thee;
I was going to be a doctor,
And still I'm going to be.
That's rather a long time ago, dear love,
Rather a long time ago;
Though sometimes in my dreams
It may be shorter than it seems,
It's a devil of a time ago, dear love,
Rather a long time ago.
Do you remember, love,
When you were not quite the dame,
How we journeyed down to Richmond
To watch the dear old game;
And I lost that golden guinea
In the usual "hundred up,"
And we both caught influenza,
Watching "George's" win the cup?
They say we're often near it, don't you know, dear love,
We're often in the final, don't you know;
They say the luck can't last;
We have won it in the past,
But it's rather a long time ago, dear love,
Rather a long time ago.
Do you remember, love,
When I passed that last exam.
By the maximum of fortune,
And the minimum of "cram"?
How I bought that bag of instruments,
So glittering and so bright,
And I lied about my prowess
As I flashed them in the light.
That was rather a long time ago, dear love,
I haven't used them yet, don't you know;
The bag has long since "bust,"
And there's nothing left but rust,
But then it's such a time ago, dear love,
Rather a long time ago.—F. W. G.

Correspondence.

To the Editor of St. Bartholomew's Hospital Journal.

THE ABERNETHIAN SOCIETY CENTENARY—A SUGGESTION.

SIR,—As this is the centenary of the Abernethian Society I would like to suggest that a volume of essays, contributed to the Society by men who have subsequently become distinguished, might be published in commemoration of the event. A somewhat similar volume (an *édition de luxe*, limited in the number printed, and one copy supplied to each living member of the Society) was issued by the Royal Medical Society of Edinburgh in 1892 under the title 'Dissertations by Eminent Members of the Royal Medical Society,' and contains interesting papers written by Bright, Liston, Syme, Christian, Matthews Duncan, and others, either as students or as recently qualified men. A similar volume containing the essays of men like Kirkes, Skey, Lawrence, Burrows, and others, would be most interesting, and, I think, welcome to all Bart.'s men. The cost need not be prohibitive.—Yours faithfully, F. P. MAYNARD, Surg.-Capt. I.M.S.

CALCUTTA;

December 31st, 1894.

To the Editor of St. Bartholomew's Hospital Journal.

January 29th, 1895.

SIR,—Apropos of the Correspondence in your columns on the formation of a St. Bartholomew's Hospital Golf Club, the following lines, taken from this evening's *St. James's Gazette*, may not be uninteresting to your readers. I am, sir, yours, &c.,—NOT A GOLFER.

"Semel emissum volat irrevocabile verbum."

Jones, well advanced in years, began
The game of golf, but found
That, though an even-tempered man,
He could not play a round
Without expressions finding vent
Of most unusual strength.
This grieved him much; so, penitent,
He tried himself at length
To one whose ghostly counsel he
Much hoped might give him aid,
And all his sad perplexity
In graphic terms displayed.
The Reverend Father shook his head,
As Reverend Fathers can.
"The case is difficult," he said;
"But try this simple plan:—
Whene'er you use a hasty word
Because you miss a stroke—
That this should vex you seems absurd,
But golfers are queer folk—
Take up a pebble from the ground,
And in your pocket lay it.
If you use many through the round,
The weight will soon betray it."

A day has passed away. Jones stands
Before his friend again;
In both his pockets are his hands,
His face is drawn with pain.
"This heap of stones that here I've got,
It grieves me much to show it,
Is for 'Confound it,' and this lot—
A big one—is for 'Blow it.'
I would the tale were thus complete,
And here the balance struck;
But—kindly step into the street—
The 'D's' are in a truck."

To the Editor of St. Bartholomew's Hospital Journal.

SIR,—The approaching anniversary of the Abernethian Society is at hand. Something might be done to commemorate the occasion to succeeding generations of students, and so I venture as a member to offer a suggestion. In the square there is room—or sufficient space could be found—for planting a tree. This might be planted, say, by some former physician or surgeon to the hospital. Further, a small board placed in the ground hard by, to indicate the date and the reason for the planting of the tree, would afford interest to future members of London's oldest medical society, as well as being a tribute to the memory of the planter.—Yours truly, HINTER.

To the Editor of St. Bartholomew's Hospital Journal.

SIR,—Do you not think that it would add to the popularity of the clinical lectures if the subjects, in as many cases as possible, were

posted along with the name of the lecturer and the date? One could then hunt up something of the subject before the specialist's lecture on his special subject is listened to. In medical clinical lectures, if one has the misfortune to be a little late, it is difficult to find out what the title of the subject in hand is.—Yours truly, MIDDLE BENCH.

Guild of St. Barnabas for Medical Students.

MEETINGS first Wednesday in each month, at 6.15, p.m., at St. John's Church, Red Lion Square, W.C.

For further particulars apply to the CHAPLAIN, 35, Brooke Street, Holborn, E.C.; or to the SECRETARY, 14, Woburn Square, W.C.

Reviews.

OUTLINES OF BIOLOGY, by P. Chalmers Mitchell, M.A. Oxon. (Methuen & Co.).—We know of no elementary text-book on biology which deals so thoroughly and so clearly with the main principles of biology as the "Outlines of Biology," by Mr. Chalmers Mitchell. It is a first-rate book, and the information it contains is well up to date, but withal elementary. Mr. Mitchell knows his subject well, has a clear way of stating his facts, and knows how much (or rather how little) to write in an elementary text-book. The book follows the lines of the new schedule of the examination in biology of the Royal Colleges of Physicians and Surgeons, but although adapted to that schedule, it is not in any sense a crambook, but gives sound and clear information on those broad general principles, as illustrated by selected types, which it is intended by the Royal Colleges should be expected of candidates for the diplomas of physician and surgeon. The student who, whilst attending a systematic course of lectures and practical work on biology, makes the book before us his text-book, and reads it intelligently, will, at the end of six months, have a sound elementary knowledge, which will stand him in well when he comes to the study of his more professional subjects. Not only is it a work which every student for the conjoint diploma ought to have, but there is much in it that those aiming at higher qualifications—such as those working for the London University Preliminary Scientific—may read with advantage.

There is only one serious fault we have to find—the illustrations. Though numerous and useful, they bear evidence of having been rather hurriedly done, and are in some cases too diagrammatic. Perhaps, too, in the chapter on "Animal Cells and Cell Division," something might have been said with advantage on the leading varieties of cell-structure, such as epithelia, muscle, nerve-cells, nerve-fibres, &c. Of course there are a few small errors, which will be corrected no doubt in a second edition, but the advantages of the book so outweigh all its imperfections that we have no hesitation in strongly recommending it to our readers amongst the first year's men and Preliminary Scientific students.

THEORY AND PRACTICE OF MEDICINE, by Frederick T. Roberts, M.D., B.Sc. F.R.C.P., ninth edition, med. 8vo (H. K. Lewis), price 21s.—The ninth edition of this work is an improvement upon former editions, inasmuch as more attention is paid to the bacterial origin of disease, and the book is thus brought up to date with recent observations and discoveries.

Much care has been given to the arrangement and classification of diseases, which will, no doubt, simplify the task of the beginner in medicine, but to us the fault of the book lies in the absence of any stimulus to the imagination of the reader.

The book contains 1128 pages of closely printed matter, and therefore cannot in any sense be regarded as a "cram book;" but, on the other hand, it is really hardly more than a collection of vast numbers of facts. Dogmatic statements may be all that a student reading for an examination requires, but to the student who reads from interest in his work, the book leaves much to be desired.

For example, under the heading of "Chorea" the author enumerates the principal theories with regard to its causation, but does not make any reference to the *pros* and *cons* of any one of them. Thus brevity, no doubt, is gained, but at the cost of interest, and we cannot but think that the book would have been much lighter reading had some attempt been made to feed the imagination as well as the memory.

Still, as it stands, the book has many good points, and this edition, in which several chapters have been almost entirely re-written, and much added, will doubtless prove no less popular than its predecessors have done.

Clinical Lectures.

Surgery.—2.45 p.m. on Wednesdays.

February 20th.—Mr. Willett.

27th.—Mr. Willett.

March 6th.—Mr. Langton.

13th.—Mr. Langton.

20th.—Mr. Langton.

Obituary.

It is with deep regret that we have to record the death of one of our nursing staff. The painful circumstances attending it make it more than usually sad.

We refer to the death of Nurse Scholefield, which took place in President Ward on Sunday evening, the 3rd inst.

On the previous Thursday morning she seemed in her usual health, and did her morning work in the operating theatre, where she had latterly been working as probationer. Between 11 o'clock and 12 noon she was seized with violent pain, and was taken to Hope Ward. Dr. Gee diagnosed perforation of a gastric ulcer, and called in Mr. Willett, who operated upon her in the theatre—the recent scene of her labours—at 3 p.m. Until Sunday, hope of her recovery was entertained, when, in spite of every care, she gradually sank, and passed away about 9.15 p.m.

Nurse Scholefield joined the hospital nursing staff in the month of August last. She was the sister of Dr. Scholefield, formerly house physician to Dr. Andrew, and to him we wish to tender our deepest sympathy. Like her brother, she had the gift of "a voice," and was a member of the Hospital Choral Society.

Births.

GILBERTSON.—Jan. 15, at Hitchin, the wife of James Henry Gilbertson L.R.C.P.Lond., M.R.C.S., of a daughter.

REECE.—On Jan. 28, at 31, Holland Villas Road, Kensington, W., the wife of Richard J. Reece, M.D., of a son.

BROOK.—On Jan. 26, at James Street, Lincoln, the wife of W. H. B. Brook, M.D., of twin sons.

Marriages.

RENDLE—DARLEY.—On Jan. 16, at St. Peter's, Belsize Park, C. E. Russel Rendle, B.A. (Oxon.), L.R.C.P., M.R.C.S., of 7, Buckland Terrace, Plymouth, to Edith Mary, second daughter of J. J. Darley, 3, Lancaster Road, Belsize Park.

ROBERTS—PÉRIN.—Jan. 19, at St. James's, Spanish-place, W., by Rev. Sebastian Bowden (of the Oratory, S. Kensington), Charles Hubert Roberts, F.R.C.S., M.B.Lond., M.R.C.P., 21, Welbeck Street, Cavendish Square, to Clotilde, daughter of Alexandre Périn, Esq., and niece of Sir Joseph McKenna, Lancaster-gate, W.

Death.

SCHOLEFIELD.—On Feb. 3rd, at St. Bartholomew's Hospital, Nurse Scholefield, aged 33.

ACKNOWLEDGMENTS.—*Guy's Hospital Gazette*, *St. Thomas's Hospital Gazette*, *St. George's Hospital Gazette*, *St. Mary's Hospital Gazette*, *The Student* (Edinburgh). *Manual of Practical and Morbid Anatomy*, by H. D. Rolleston, M.A., M.D., F.R.C.P., and A. A. Kanthack, M.D., M.R.C.P. *Two Cases of Compound Depressed Fracture of the Skull, treated by trephining and replacement of bone*, by Anthony A. Bowlby, F.R.C.S.